

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Rocky Flats**

Site Summary Level: **Rocky Flats Environmental Technology Site**

Project **RF009 / Pu Solid Residue Stabilization Project**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0341**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Purpose: Both DOE's Pu Vulnerability Study and the Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 94-1 identified the unstabilized residues at RFETS as a potential hazard. The purpose of the project is to conduct the minimum processing necessary to prepare solid residues to address DNFSB Recommendation 94-1. The residues will be processed to meet, as necessary, the Interim Safe Storage Criteria (ISSC) and the Waste Isolation Pilot Plant Waste Acceptance Criteria (WIPP WAC). Additionally, the Settlement Agreement and Compliance Order on Consent No. 93-04-23-01 with the State of Colorado requires the processing of the backlog of mixed residues to put them in a shippable and/or disposable form as expeditiously as reasonably possible and to remove them from plant site as expeditiously as reasonably possible once an off-site disposal facility becomes available.

Stakeholder concerns are summarized by DNFSB Recommendation 94-1 and the Settlement Agreement and Compliance Order on Consent No. 93-04-23-01. Stabilization of the residues will address safety concerns with the chemical stability of the residues and the stability of their packaging, greatly reducing possible risks to worker health and safety. Removal of the residues from the site eliminates the risk to workers, the public, and the environment from chemical and radiological hazards and directly supports the Site Closure Mission. Performing the stabilization will cause an increase in health and safety vulnerabilities associated with the handling and processing of nuclear materials. However, processes will be optimized to remove or reduce potential causes of accidents (e.g., glovebox machinery) and controls will be in place to address analyzed hazards.

In FY99 a Non-Destructive Assay (NDA) Program Office was established with the mission to ensure that Site Closure plans and schedules are adequately supported by NDA plans, equipment assets and other resources which: provide sufficient NDA capacity for anticipated throughputs from both backlog inventory and future generation in support of Site Closure plans; maintain sustained high levels of equipment availability (90% target); employ new and improved techniques to meet emerging assay requirements; ensure that systems and processes satisfy worker safety and safeguards requirements as well as quality assurance objectives and certification requirements for waste repositories and nuclear material storage sites; and ensure that all NDA equipment is Y2K compliant.

Scope: Processing of solid residues includes characterization, stabilization, safeguards termination limit compliance, and repackaging as required to be certifiable for disposal. The material to be processed includes all the backlog solid residues generated as byproducts from plutonium production operations. Solid residues are categorized by type of material and identified by an Item Description Code (IDC). The inventory of solid residues consists of approximately 106 metric tons of bulk material in 99 IDCs with an average plutonium concentration of about 3%. The residues are stored in approximately 4000 drums and 4000 containers. The bulk material quantities to be processed is based on the Ulrich data base (1995), with Special Nuclear Material content as documented in the current SAN data base. Processing will be complete by 2002 and shipping of the residues off-site will be complete by 2006 as established in the Closure Project Baseline.

The SNM Solid Residue work scope includes:

1. Facility preparation, equipment installation (if necessary), startup, and operations in B707, B776/777, and B371 including preparation of enabling

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documentation, training and readiness determinations.

2. Solid residue characterization for hazard assessment and compliance documentation.

3. Processing and repackaging of 106,000 kg of plutonium-bearing solid residues.

4. Documentation to support certification of processed residues and secondary waste for compliance to WIPP/WAC or other designated offsite facility acceptance criteria.

5. Shipment of certain sub-populations of solid residues to SRS and LANL. Note: interim storage and shipment to WIPP are not included in the scope of this PBS.

The scope the NDA Program Office includes: procurement, installation, subcontract maintenance support (to include spare parts) and deactivation of all Site NDA equipment. Additionally, the NDA Program office supports financially the WIPP certification of small package NDA measurements; the procurement and periodic re-calibration of standards; operation of equipment (primarily calorimeters and Tomographic Gamma Scanners) which have numerous customers; and activities of a "core team" of professionals who spend part of their time on site-wide, program-wide efforts.

Technical Approach: The SNM Solid Residue Development Project's conceptual designs were completed during FY95, and project was separated into several subordinate components. These are the Salt Residue Stabilization subproject (Salt Project); the Ash/Dry/Classified Shapes & Repack subproject (Ash Project); the Sand Slag and Crucible Repack Operations Project; and the Wet/Combustible Residue Stabilization and Repack subproject (Wet Project). The last two, due to common facility use were subsequently combined.

The Salt Project was initially designed to be constructed in B779, but changes in the site mission forced the decision to complete the project in B707. The facility is located in Module A, the NDT area, and portions of Module F of B707. The physical construction and testing/turnover for operation was completed in early FY98. The salt residues will be processed in Module A in B707 and B371. Processing includes unpacking, preparation of the charge, pyro-oxidation, in-line repacking, and nondestructive assay.

The Wet Project is being installed in Rooms 3701, 3206, and 3315 of B371. The 3206 and 3701 project will be completed in FY99. The 3515 room will be completed in FY99.

The wet/combustible residues will be processed in B371. The specific processing varies for the different categories included with wet/combustibles. The majority will be processed by repacking for shipment to WIPP. Fluorides will be shipped off site for processing.

The Sand Slag and Crucible Repack Project is being completed in Room 3602 in Building 371. The project is planned for completion by December, 2000.

The strategy of the Ash Residue Project incorporates minimal processing as necessary to resolve safety concerns and repackaging of the residues in the

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most economic configuration which meets the Interim Safe Storage Criteria (if necessary), WIPP WAC and the Safeguards Termination Limits (STL). Processes were selected based on a systems engineering approach.

The primary and long-term objective of the Residues Stabilization Program is to stabilize, as necessary, plutonium-bearing residue material to facilitate the formal declaration of this material as TRU waste, package it for interim storage (if necessary) and final disposition, resolve the safeguards protection requirements for the material, and to ship the material to WIPP for final disposal. The near-term objective is to assure that the material, as stored, does not represent a significant threat to the health and safety of the workers and to stabilize or reclassify through characterization residues considered high risk.

Stabilization / Repackaging will be two-fold. First, lower risk IDCs will be processed as required to ensure optimal training and efficiency in operations. Secondly, as process is established, high risk residues will be dispositioned to meet expeditiously reduced site risk.

The effective execution of the Residue Stabilization Program will require that a diverse group of requirements be properly defined and thoroughly considered. The strategy for achieving the objectives outlined above will require the characterization of the residues before and after processing, that facilities and processes be consistent with residues feedstocks, that the costs be controlled and reduced, that safety and environmental protection be continuously maintained, and that shipments be minimized.

The following are the primary elements of the strategy to achieve effective execution of the Solid Residues Stabilization Program:

- Achieve interim safe storage of residues
- Continue the Residues Pre and Post stabilization Monitoring and Surveillance Program
- To conservatively assign risk levels to residues based on process knowledge.
- Integrate with the Characterization Program to accurately classify the residue.
- Achieve worker and public safety within residue processing efforts
- Achieve compliance with environmental regulations
- Identify hazardous waste constituents that will invoke specific compliance actions
- Achieve production efficiency rapidly with safety of workers paramount.
- Achieve stabilization and/or repackaging throughput to meet or beat the Site Integrated Stabilization Management Plan (SISMP) schedules.
- Reconfigure fissile materials to Attractiveness Level D and E whenever possible.
- Obtain variances for safeguard termination limits as necessary and prudent.
- Separate fissile materials only when absolutely necessary.
- Minimize number of waste packages and shipments to WIPP.
- Minimize movements of waste packages on site.
- Execute program to gather and authoritatively document data and information regarding waste in drums necessary for certification.
- Structure the project to gather and document data and information generated during the stabilization and repackaging efforts.

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- Utilize data from Characterization Program and Stabilized Residue ISSC Surveillance Program to the maximum extent possible.
- Obtain and feed back appropriate information for the material control and accountability program.

Project Status in FY 2006:

This project will be completed.

Post-2006 Project Scope:

No activities are currently scheduled to occur after 2006 for this project.

Project End State

Solid residues will be processed, repackaged, and if necessary placed in interim safe storage, in a state certifiable for disposal, pending ultimate disposal at WIPP or other designated off-site facilities. Secondary waste will be processed in accordance with Waste Stream and Residue Identification and Characterization (WSRIC). This material will be managed in interim storage, if necessary, and shipped off-site by Project 02, Waste Management.

After the scheduled completion of the Residue Program, the NDA Program Office will be disestablished and its functions transferred to the closure Projects organizations until the closure of Rocky Flats.

Cost Baseline Comments:

Cost estimates are based on assumptions and data developed by the technical groups that have responsibility for managing the work. To the extent practical, all cost estimates are Activity-Based Costs (ABC) and tied directly to a defined and detailed work scope. The estimates are developed at the activity level and are further divided into line items. Line items represent individual resource contributions to activities and are the lowest level of input to the planning system. Once the cost estimate is developed, each activity is evaluated for cost, technical and schedule risk and the appropriate contingency is determined. Detailed estimates and the basis of estimates (BOEs) for the 2006 Closure Plan are available at the Site.

Safety & Health Hazards:

The principle hazards in the Pu Solid-Residue Stabilization Project are radiological, criticality, chemical, and other standard industrial hazards commonly found in Pu buildings at RFETS. Most of these hazards will exist throughout the project and are related to SNM material movement, maintenance, surveillance, inspection, salt stabilization, ash stabilization, wet/combustible stabilization, classified shape repackaging, packaging, storage, and some safety system upgrades and new construction. These hazards will be analyzed and categorized in accordance with the RFETS Safety and Health Program infrastructure policies, manuals, and procedures.

The hazards associated with all of the sub-projects construction activities are similar. All of the projects are in existing plutonium processing buildings. Therefore, all of the projects will have radiological hazards during their site preparation and construction phases. During site preparation, lead and asbestos hazards may also be present as well as OSHA industrial hazards associated with construction efforts. During the construction phase

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OSHA construction industry hazards will be present. Lead hazards will also be present during the construction phase when it is installed as shielding on glove boxes.

The safety assurance controls for the REP are the integrated work control program (IWCP) and job safety analysis (JSA) and the Radiological Work Permit (RWP). the IWCP under goes technical review, a safety screen, and Operational Review Committee review and approval prior to release for construction. the JSA is reviewed by the sub-contractor's safety manager, building Industrial Hygiene and Safety and Radiological Engineering to ensure proper analysis of hazards and corresponding controls are identified. The lead and asbestos hazards assurance controls are in the lead and asbestos abatement plans.

After the IWCP and JSA are approved for construction, the construction sub-contractor will be released to commence construction. The IWCP serves as the construction procedure and the construction sub-contractor is required to give verbatim compliance to the IWCP. The JSA and RWP ensures that all job hazards have been identified, mitigated and that construction personnel are aware of the hazards and mitigation measures.

Per the Conduct of Engineering Manual, a lessons learned document is prepared after each construction project. These lessons learned are circulated throughout the project management group to develop a mutual experience base.

Safety & Health Work Performance:

This project will be completed within the RFETS Safety and Health Program and within the controls and authorization basis documents defined above to ensure the safety and health of the worker, public and the environment. RFETS has implemented an Integrated Work Control Program (IWCP) consisting of the following elements: radiological safety, criticality safety, emergency management, fire safety, industrial hygiene, nuclear safety, occupational medicine, occupational safety, safeguards and security, safety integration, performance oversight, and standards management. RFETS provides site wide infrastructure programs for each functional area to establish consistent safety standards and support for this project. Safety and health success results from the efficient and effective implementation of these programs. This project is responsible for ensuring that the necessary elements of the safety and health programs are incorporated into the specific project plans and implementing documents, and that an appropriate Readiness Determination and Safety Evaluation Screen (SES)/Unreviewed Safety Question Determination (USQD) have been performed.

PBS Comments:

The processing and shipping of solid residues is on the critical path for Site closure, and all aspects of the project must be complete to enable deactivation of the site's nuclear facilities (B771, B776/777, B371, and B707).

The baseline is budgeted to meet the DNFSB IP commitments defined in SISMP 7.0. Start-up of repackaging operations may be delayed due to budget constraints.

Baseline Validation Narrative:

Although the 2006 Closure Plan has not been officially validated, it has undergone a high level review by Rocky Flats Field Office (RFFO) and Headquarter personnel. Current independent validation efforts include the following: 1) RFFO has contracted an independent firm to perform a baseline confidence review of the 2006 Closure Plan by the end of FY99, and 2) the Office of Field Management (FM) has contracted a big-five

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accounting firm to validate the 2006 Closure Plan.

In addition to the 2006 Closure Plan validation efforts, results/recommendations from several previous baseline validation efforts were used in the development of the 2006 Closure Plan. These validations included: 1) The U.S. Army Corps of Engineers (USACE) performed a validation of the Rocky Flats Ten Year Plan in FY97/FY98, 2) Kaiser-Hill contracted Price Waterhouse Coopers, LLP to conduct and independent validation effort of the 2010 Closure Project Baseline that concluded in May of FY99, and 3) Kaiser-Hill engaged Arthur Andersen, LLP to conduct a schedule and cost risk review of the 2010 Closure Project Baseline.

General PBS Information

Project Validated?

Date Validated:

Has Headquarters reviewed and approved project?

No

Date Project was Added: 12/1/1997

Baseline Submission Date:

FEDPLAN Project? Yes

Drivers:	CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
	N	Y	Y	N	N	Y	Y	N

Project Identification Information

DOE Project Manager: Jessie Roberson

DOE Project Manager Phone Number: 303-966-2263

DOE Project Manager Fax Number: 303-966-4775

DOE Project Manager e-mail address: ten.year.plan@rfets.gov

Is this a High Visibility Project (Y/N): Y

Planning Section

Baseline Costs (in thousands of dollars)

1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
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Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006	
PBS Baseline (current year dollars)	343,669	0	343,669	55,902	55,902	61,285	61,285	76,235	93,271	29,202	19,344	8,430	0	0	0	
PBS Baseline (constant 1999 dollars)	337,871	0	337,871	55,902	55,902	61,285	61,285	76,235	90,819	27,849	18,069	7,712	0	0	0	
PBS EM Baseline (current year dollars)	343,669	0	343,669	55,902	55,902	61,285	61,285	76,235	93,271	29,202	19,344	8,430	0	0	0	
PBS EM Baseline (constant 1999 dollars)	337,871	0	337,871	55,902	55,902	61,285	61,285	76,235	90,819	27,849	18,069	7,712	0	0	0	
	2007	2008	2009	2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.00%	0.00%	0.00%	2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

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2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project: 9/30/2003

Current Projected End Date of Project: 9/30/2003

Explanation of Project Completion Date Difference (if applicable):

Scope Deletion

Efficiencies

Acceleration of residue processing.

New Scope

Cost Growth

Increased need for escorts of uncleared craft personnel & processing through the PA portals, reduced ratio of workers to escorts resulted in lost craft time and lost productivity.

Science & Technology

Other

The scope of work and end state conditions for the 2006 Plan are similar to the current 2010 Baseline, with a four-year acceleration and a reduction in cost being the two most significant differences. The bottom-up estimate for the 2006 Plan is a \$1.65 billion improvement over the comparable activity-based bottoms-up detail estimate for 2010.

To close the Site four years earlier than the current 2010 Baseline requires a strategically different approach. The two key principles followed in preparing the 2006 Baseline were: 1) safely reducing the urgent risks first, and 2) performing work in a sequence that reduces or eliminates operations, maintenance and security costs (often referred to as - mortgage costs) as early as possible. Key to the 2006 Baseline approach is early closure of the secured Protected Area. Closing the Protected Area as soon as possible means that the high security and maintenance costs for this area can be redeployed to accelerate other closure activities. In addition, D&D and SNM risk reduction activities will be performed simultaneously rather than sequentially, supporting both the risk reduction and mortgage reduction principles. The D&D of non- and lower-contaminated facilities and most environmental remediation work will be deferred until later in the project to allow resources to be focused in the areas that result in the greatest reduction in risks and mortgage costs.

Project Cost Estimates (in thousands of dollars)

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Project Reconciliation

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	454,285	Actual 1997 Cost:	55,902	Actual 1998 Cost:	61,285
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	337,098	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):			9,102
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	346,200				

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):	171,282	Rebaselining due to acceleration. New scope dollar estimate is not of audit quality.
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	517,482	
Additional Amount to Reconcile (+):	-296,798	
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	220,684	

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Make Disposition Ready: 7,012 kgs of salts			9/30/1999						Y		
Make Disposition Ready: 8,950 kgs of ash			9/30/1999						Y		
Make Disposition Ready: 8,000 kgs of combustibles			9/30/1999						Y		
Make Disposition Ready: 8,700 kgs of inorganics			9/30/1999						Y		
Ship 1,300 kgs of sand, slag, and crucibles.			9/30/1999						Y		
Complete Residue Stabilization	RF-0039		9/30/2002		9/30/2002						
IP 308 - Comp Char of Specified Res to 95/5 Conf	RF-0187		2/26/1999		2/26/1999			Y			

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Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
IP - 311 - Stabilize IDC 333 Residue (7/31/99)	RF-0188		7/15/1999		7/15/1999			Y			
FY02-T1 Cmpl Repack Pu Inorganics/Oxide Residues	RF-0189		5/31/2002	5/31/2002	5/31/2002		Y				
IP - 315 - Complete Repackaging Ash (12/31/00)	RF-0191		12/28/2000		12/28/2000			Y			
IP - 316 Dry Repack Operations Complete	RF-0192		5/30/2002		5/30/2002			Y			
IP - 312 Complete Repackaging of All Salts	RF-0193		7/31/2000		7/31/2000			Y			
IP - 310 - Stabilize High Risk Salts (7/31/99)	RF-0194		7/30/1999		7/30/1999			Y			
Complete B776 Dry Repack (3/31/00)	RF-0195		3/29/2000		3/29/2000						
IP3.3-012a Begin Stab PyroChem Oxide HR Salts	RF-0202		9/30/1998		9/30/1998			Y			
FY02-T2 - Complete Salt Stabilization	RF-0203		9/30/2002	9/30/2002	9/30/2002		Y				
IP - 317 COMPLETE REPACKAGING WET/COMBUSTIABLES	RF-0204		5/31/2002		5/31/2002			Y			
IP - 313 Complete Shipment Of Fluorides To SRS	RF-0205		9/30/2000		9/30/2000			Y			
FY01-T3 Cmpl Offsite Shipments Of Fluorides	RF-0206		9/30/2001	9/30/2001	9/30/2001		Y				
FY00-T2 SS&C Shipments Complete to SRS	RF-0207		9/30/2000		9/30/2000						
IP - 314 Complete Shipping SS&C to SRS	RF-0218		11/30/2000		11/30/2000			Y			
Complete PBD 009 - Pu Solid Residue Stab Project	RF-OTHE-09		9/30/2003		9/30/2003					Y	
PBD009 Project Start			10/1/1997								
Complete PBD 09 WAD 14	RF-OTHE-09		9/30/2003							Y	

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Make Disposition Ready: 7,012 kgs of salts											

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Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Make Disposition Ready: 8,950 kgs of ash											
Make Disposition Ready: 8,000 kgs of combustibles											
Make Disposition Ready: 8,700 kgs of inorganics											
Ship 1,300 kgs of sand, slag, and crucibles.											
Complete Residue Stabilization	RF-0039	Y									Kaiser Hill Internal (KHIs) Milestones
IP 308 - Comp Char of Specified Res to 95/5 Conf	RF-0187										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
IP - 311 - Stabilize IDC 333 Residue (7/31/99)	RF-0188										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
FY02-T1 Cmpl Repack Pu Inorganics/Oxide Residues	RF-0189										Rocky Flats Clean-up Agreement (RFCAs) Milestones
IP - 315 - Complete Repackaging Ash (12/31/00)	RF-0191										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
IP - 316 Dry Repack Operations Complete	RF-0192										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
IP - 312 Complete Repackaging of All Salts	RF-0193										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
IP - 310 - Stabilize High Risk Salts (7/31/99)	RF-0194										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
Complete B776 Dry Repack (3/31/00)	RF-0195	Y									Kaiser Hill Internal (KHIs) Milestones
IP3.3-012a Begin Stab PyroChem Oxide HR Salts	RF-0202										Defense Nuclear Facility Safety Board (DNFSBs) Milestones

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Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
FY02-T2 - Complete Salt Stabilization	RF-0203										Rocky Flats Clean-up Agreement (RFCAs) Milestones
IP - 317 COMPLETE REPACKAGING WET/COMBUSTIBLES	RF-0204										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
IP - 313 Complete Shipment Of Fluorides To SRS	RF-0205										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
FY01-T3 Cmpl Offsite Shipments Of Fluorides	RF-0206										Rocky Flats Clean-up Agreement (RFCAs) Milestones
FY00-T2 SS&C Shipments Complete to SRS	RF-0207	Y									Rocky Flats Clean-up Agreement (RFCAs) Milestones
IP - 314 Complete Shipping SS&C to SRS	RF-0218										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
Complete PBD 009 - Pu Solid Residue Stab Project	RF-OTHE-09	Y			Y	Y					Kaiser Hill Internal (KHIs) Milestones
PBD009 Project Start				Y							PBD009 Project Start
Complete PBD 09 WAD 14	RF-OTHE-09	Y			Y	Y					Kaiser Hill Internal (KHIs) Milestone

Performance Measure Metrics

Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planned 2004
NM														
Stabilized - Pu Res.	Kg/B	102,145.00	0.00	102,145.00	0.00		0.00	5,004.00	42,988.00	42,210.00	10,371.00	1,572.00		
Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035	

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Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats**

Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site**

HQ ID: **0341**

Project **RF009 / Pu Solid Residue Stabilization Project**

Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035
NM													
Stabilized - Pu Res.	Kg/B												
Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total			
NM													
Stabilized - Pu Res.	Kg/B									59,157.00			

Technology Needs

Site Need Code: RF-SNM01

Site Need Name: Measurement of Hydrogen Gas Generation Rates to Justify Increased Drum Wattage Limits

Focus Area Work Package ID: MW-05

Focus Area Work Package: Payload Enhancement for Transporting TRU Waste within Restrictive Regulatory Limits

Focus Area: MWFA

Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies

Hydrogen Gas Getters

Flammable Gas Headspace Measurement

Cost Savings (in thousands of dollars)

Range of Estimate

Related CCP Milestones

Related Waste Streams

Agree?

Change?

02288: -

Y

N

01388: ER-04C - Sorted D&D TRU

Y

N

01410: T-01 - Legacy TRU

Y

N

01420: T-02 - CH TRU New Gen

Y

N

Dataset Name: **FY 1999 Planning Data**

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Date of Dataset: **9/20/1999**

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Rocky Flats**

Site Summary Level: **Rocky Flats Environmental Technology Site**

Project **RF009 / Pu Solid Residue Stabilization Project**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0341**

Technology Needs

Site Need Code: RF-SNM13

Site Need Name: RFETS Residue and Misc. TRU Waste Stabilization Process Support

Focus Area Work Package ID: NMFA-03

Focus Area Work Package: Untitled (pending title by FA)

Focus Area: PLUTOFA

Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies

Cost Savings (in thousands of dollars)

Range of Estimate

Site Need Code: RF-SNM18

Site Need Name: Core Scientific R&D Capability In Support Of NMFA Nuclear Material Management Needs

Focus Area Work Package ID: NMFA-03

Focus Area Work Package: Untitled (pending title by FA)

Focus Area: PLUTOFA

Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies

Cost Savings (in thousands of dollars)

Range of Estimate

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

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